

Linear Actuator LA42

Data Sheet



Contents

Introduction.....	3
Features and options	3
Usage	4
Dimensions	5
Cable options	6
Back fixture orientation	7
Connection options.....	7
Ordering example	8
Piston rod eyes for LA42	9
Technical specifications.....	10
Combination examples.....	11
1-actuator system	11
3-actuator system	11
3-actuator system with battery	12
4-actuator system	12
Speed, load and current curves	13
Push version	13
Pull version	14
Contacts	15

Introduction



The LA42 is a strong and flexible actuator with a push load of up to 7,000 N (6,000 N after first 50 mm) and a dynamic load pull of 3,500 N, offering stable and reliable performance. The motor housing offers the ability to customise the motor direction, allowing designers more options for placement in applications. With an IPX6 rating, the LA42 enables a high level of hygienic cleaning.

The LA42 is flexible in terms of its unique configuration possibilities and can be linked in systems with several LA42 actuators via the Power Junction Box PJB4.

This actuator can be used with various PCP 2.0 control boxes like CO71 and LIFT50™, where PCP communication allows the LA42 to maintain its actuator channel regardless of which PCP port it is connected to.

Strong benefits of using LA42 are:

- Multi-directional angling of motor housing
- Innovative system connectivity via PCP 2.0
- IPX6
- Strong and fast actuator in a small form factor

Features and options

Load in push:	Up to 7,000 N (6,000 N after first 50 mm, 6,000 N self-lock)
Load in pull:	Up to 3,500 N
Dynamic push and pull:	Actuators are designed for push or pull applications. If a combination is required, please contact your local LINAK salesperson.
Housing colour:	Black RAL9005
Protection class:	IPX6
Motor:	24 VDC Motor can be rotated in increments of 10 degrees* The motor position cannot be changed after the LA42 has been produced.
Minimum mechanical stroke length:	50 mm - 400 mm
Minimum mechanical built-in dimensions:	137 mm + stroke length
Sound level:	≤ 54 dB (A)
Safety nut:	Standard in push
Built-in endstop switches:	Virtual endstop + mechanical endstop
Safety factor:	2.5 in push, 5 in pull Please note that an extension of the built-in dimension may reduce the safety factor
Weight:	1.8 kg
Static bending moment:	No side load allowed

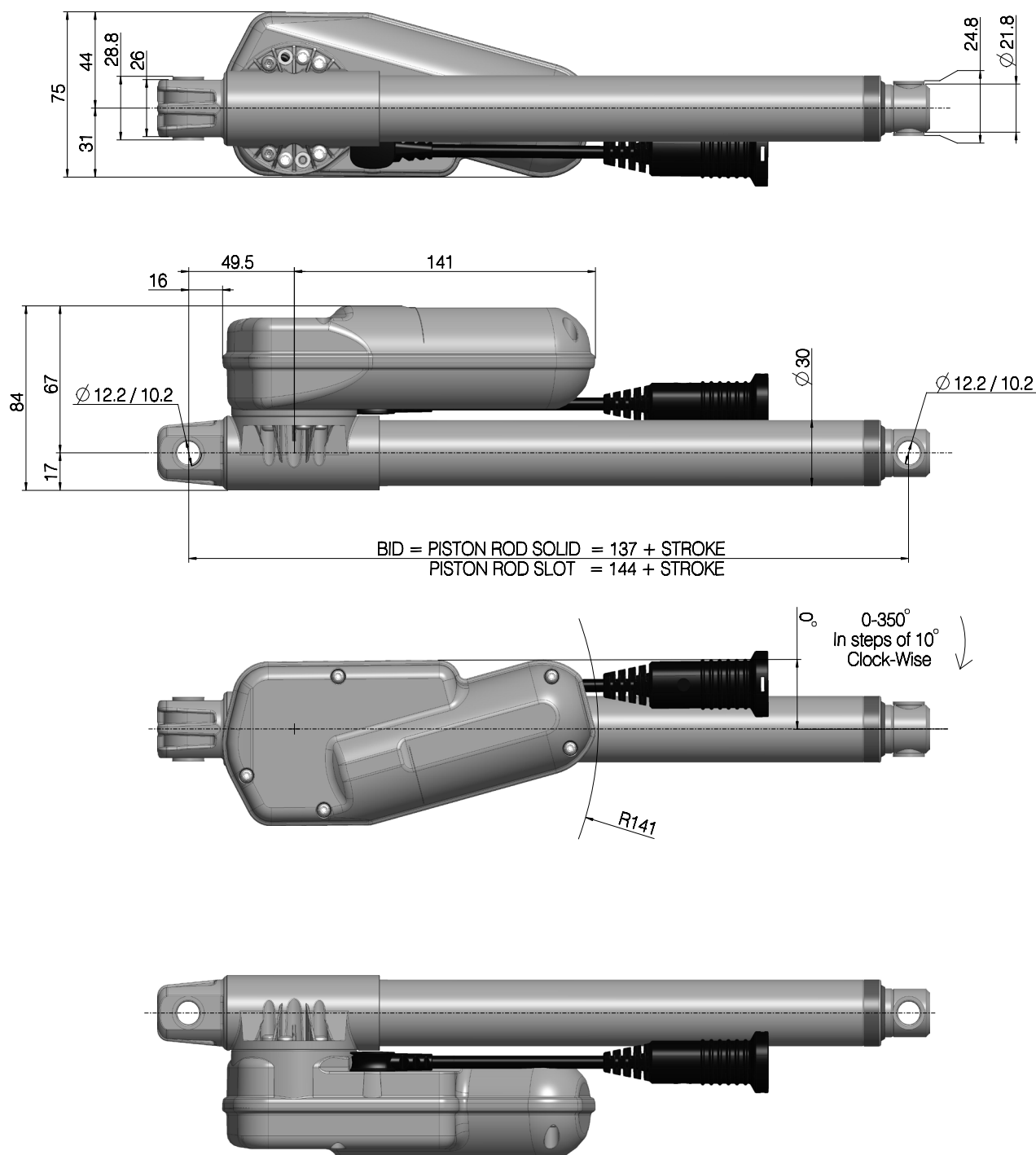
* Specific angle specification, see ordering example

Usage

Operation temperature:	+5 °C to +40 °C
Storage temperature:	-10 °C to +50 °C
Compatibility:	Compatible with LINAK control boxes with Power Communication Port (PCP 2.0 only)
Relative humidity:	20% to 80% – non-condensing
Atmospheric pressure:	700 to 1060 hPa
Height above sea level:	Max. 3000 meters
Duty cycle:	10%, 2 minutes continuous use, followed by 18 minutes not in use
Flammability rating:	UL94V-0
Approvals:	IEC60601-1 ANSI/AAMI ES60601-1 CAN/CSA-22.2 No 60601-1

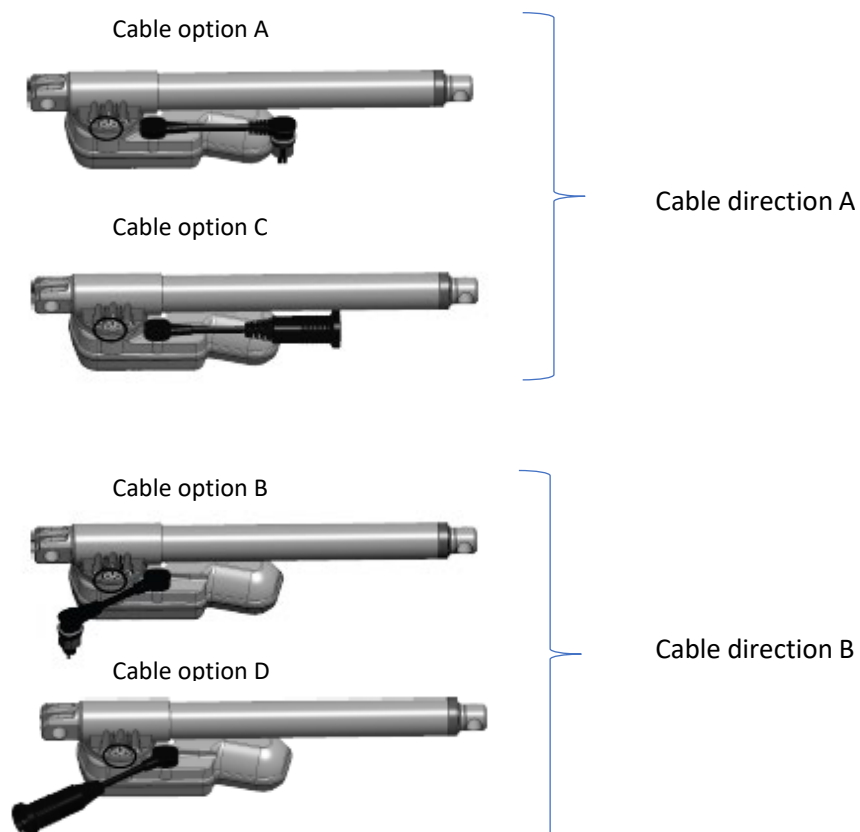
Dimensions

All dimensions are in mm

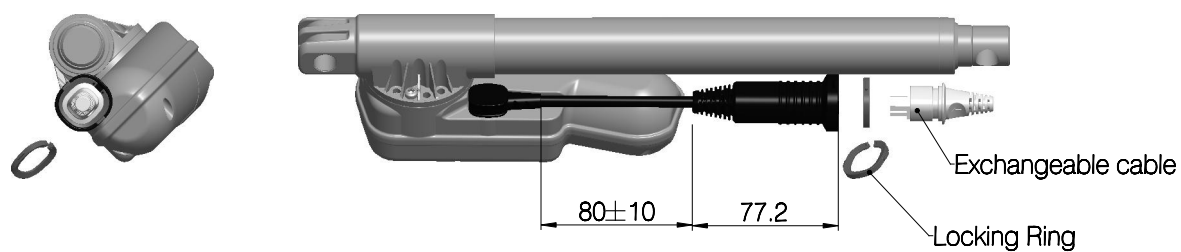


Drawing no.: 1068W9016

Cable options

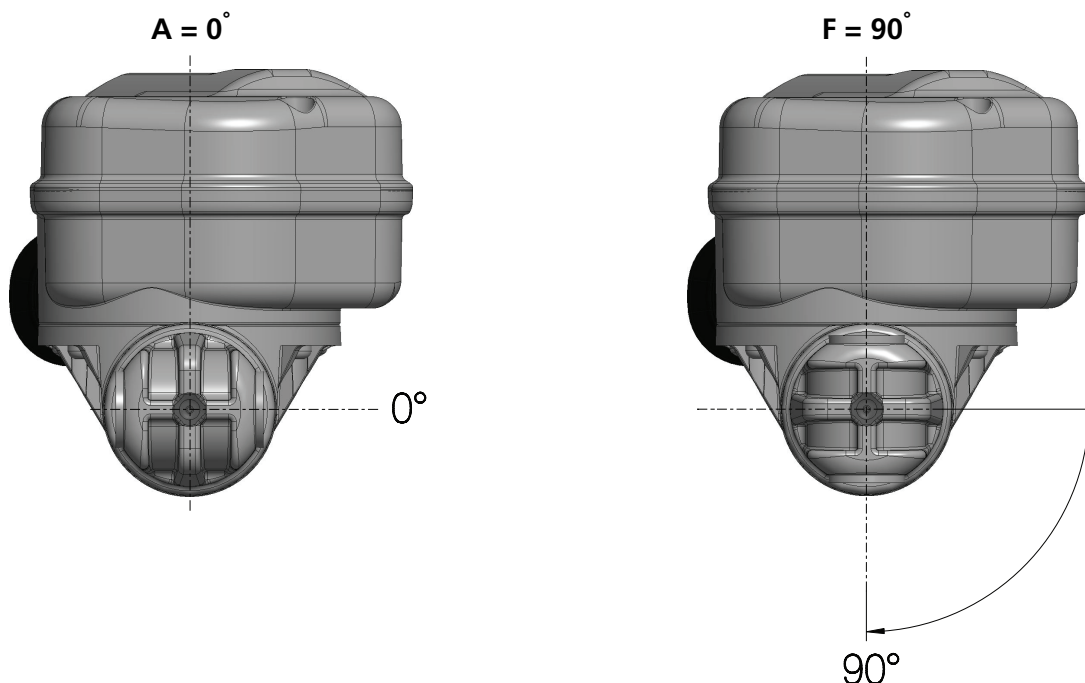


Cable option needs to be ordered together with the actuator.



Back fixture orientation

Two back fixture position options available in 0° or 90°:



Information

- LA42 is only delivered with bushings. If Ø12.2 is needed, the customer must remove bushings.

Connection options

LA42 is a PCP 2.0 actuator, and unlike other actuators, it must connect to only the PCP ports in a LINAK system. Since PCP devices are different from actuator channels, an LA42 must be 'assigned' to an actuator channel to operate properly.

The channel an LA42 actuator operates as is determined by the 25th digit in the 30-digit combicode, referring to the actuator's PCP ID. Because IDs 1 through 4 are reserved for batteries, PCP actuators must start at ID5. Depending on the control box, ID5 may refer to channel 5 or channel 4.

Refer to the below chart when determining which ID to select for your LA42, depending on the channel it should operate as.

ID	CO41, CO61, CO65, CO71, CA63	COL50
5	Channel 5	Channel 4
6	Channel 6	Channel 5
7	Channel 7	Channel 6
8	Channel 8	Channel 7
9	Channel 9	Channel 8

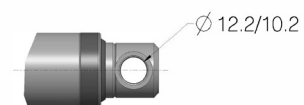
Ordering example

	LA				
Actuator LA42	42				
Spindel pitch:	025	025 = 2.5 mm	040 = 4 mm	060 = 6 mm	120 = 12 mm 150 = 15 mm
Design stroke length:	160	000 = XXX mm	min. 50 mm	50 - 400 mm	
Safety:	0A	0A = Safety nut, push			
Feedback:	0M	0M = Dual Hall encoded F3			
Platform:	6	6 = PCP (PCP2.0)			
Motor type:	B	B = 24 VDC. Std. C = 24 VDC. Std. brake - motor type will be chosen automatically according to selected spindle pitch (4, 6, 12 and 15 mm pitch will require motor type C)			
End stop:	5	5 = None E0	Virtual endstop		
IP:	6	6 = IPX6			
Colour:	-	- = Black Ral 9005			
Back fixture:	1	1 = Ø10.2 w/bushings (remove bushings to get Ø12.2)			
Back fixture orientation:	F	A = 0° F = 90°			
Piston rod eye:	1	1 = Ø10.2 solid w/bushings (remove bushings to get Ø12.2)(BID = 137 + SL) 2 = Ø10.2 slot w/bushings (remove bushings to get Ø12.2)(BID = 144 + SL)			
Load direction:	0	0 = Push P = Pull			
Motor position:	0A	0A = 0°	0J = 90°	0T = 190°	1E = 290°
		0D = 30°	0K = 100°	0U = 200°	1F = 300°
		0E = 40°	0L = 110°	0V = 210°	1G = 310°
		0F = 50°	0P = 150°	0W = 220°	1H = 320°
		0G = 60°	0Q = 160°	0Y = 230°	1I = 330°
		0H = 70°	0R = 170°	1C = 270°	1J = 340°
		0I = 80°	0S = 180°	1D = 280°	1K = 350°
Cable:	C	A = 1000 mm RAL9005 PCP cable. Cable direction A (angled Mini-Fit connector) B = 1000 mm RAL9005 PCP cable. Cable direction B (angled Mini-Fit connector) C = 80 mm RAL9005 PCP cable. Cable direction A (exchangeable cable) D = 80 mm RAL9005 PCP cable. Cable direction B (exchangeable cable)			
ID:	5	5 = ID 5 6 = ID 6 7 = ID 7 8 = ID 8 9 = ID 9	Info: See description under 'connection options' for more information		
Not used	0				
Installation dimension	0297	137 mm + stroke (50 - 400 mm stroke) mechanical stroke length - piston rod eye solid 144 mm + stroke (50 - 400 mm stroke) mechanical stroke length - piston rod eye slot			
Item number: 420251600A0M6B56-1F100AC500297					

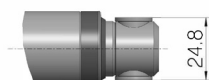
Snap ring for locking of Mini-Fit cable (extension plug), cable options C + D
MOQ = 100 pcs, item no.: 0961006

Piston rod eyes for LA42

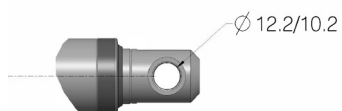
Piston rod solid - type 1



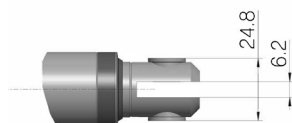
Piston rod eye solid is $\varnothing 10.2$ mm with bushings.
 Remove bushings to get $\varnothing 12.2$ mm.
 Minimum possible BID: 137 mm + stroke length.



Piston rod eye slot - type 2



Piston rod eye slot is $\varnothing 10.2$ mm with bushings.
 Remove bushings to get $\varnothing 12.2$ mm.
 Minimum possible BID: 144 mm + stroke length.



Technical specifications

Performance in push version

Actuator type	Motor type	Spindle pitch (mm)	Max. load push (N)	Self-locking push (N)	Max. load pull (N)	Typical speed at 0/max. load (mm/sec.)	Typical current at full load (Amps)
LA42 PCP	24 VDC Std	2.5	7,000	6,000	2,000	5.2/3.8	5.0
LA42 PCP	24 VDC Std w/ brake	4	5,400	5,400	2,000	8.5/5.8	5.5
LA42 PCP	24 VDC Std w/ brake	6	3,400	3,400	2,000	12.4/9.7	4.4
LA42 PCP	24 VDC Std w/ brake	12	1,300	1,300	0	24.3/20.3	3.8
LA42 PCP	24 VDC Std w/ brake	15	1,000	1,000	0	30.7/26.0	3.5

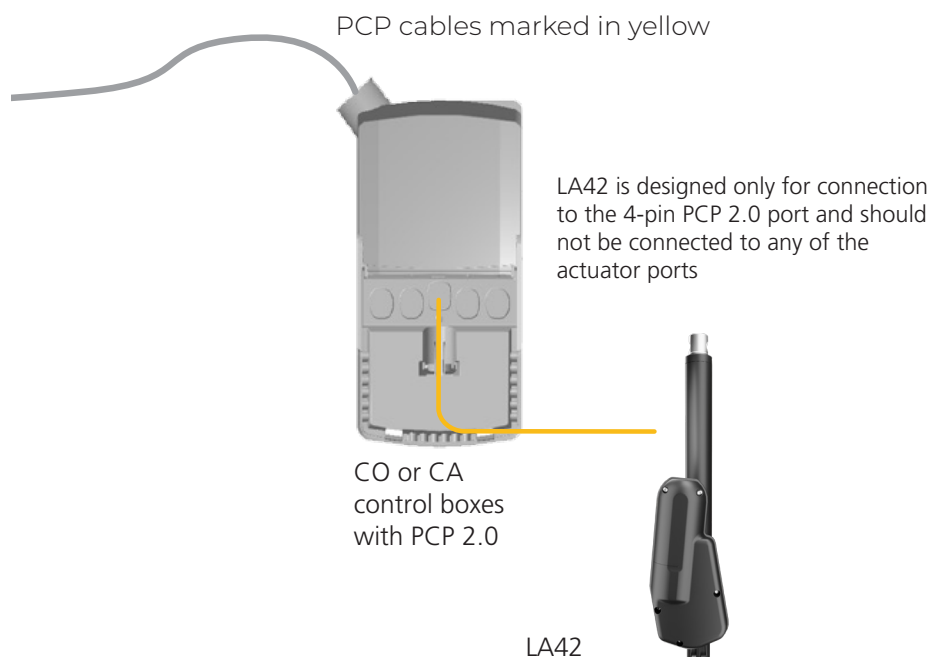
Performance in pull version

Actuator type	Motor type	Spindle pitch (mm)	Max. load pull (N)	Self-locking pull (N)	Max. load push (N)	Typical speed at 0/max. load (mm/sec.)	Typical current at full load (Amps)
LA42 PCP	24 VDC Std	2.5	3,500	3,500	2,700	5.1/4.5	3.1
LA42 PCP	24 VDC Std	4	2,700	2,700	0	8.2/7.1	3.1
LA42 PCP	24 VDC Std	6	2,100	2,100	0	12.4/10.6	3.2
LA42 PCP	24 VDC Std	12	800	800	0	24.7/22.5	2.3
LA42 PCP	24 VDC Std	15	600	600	0	30.9/28.3	2.2

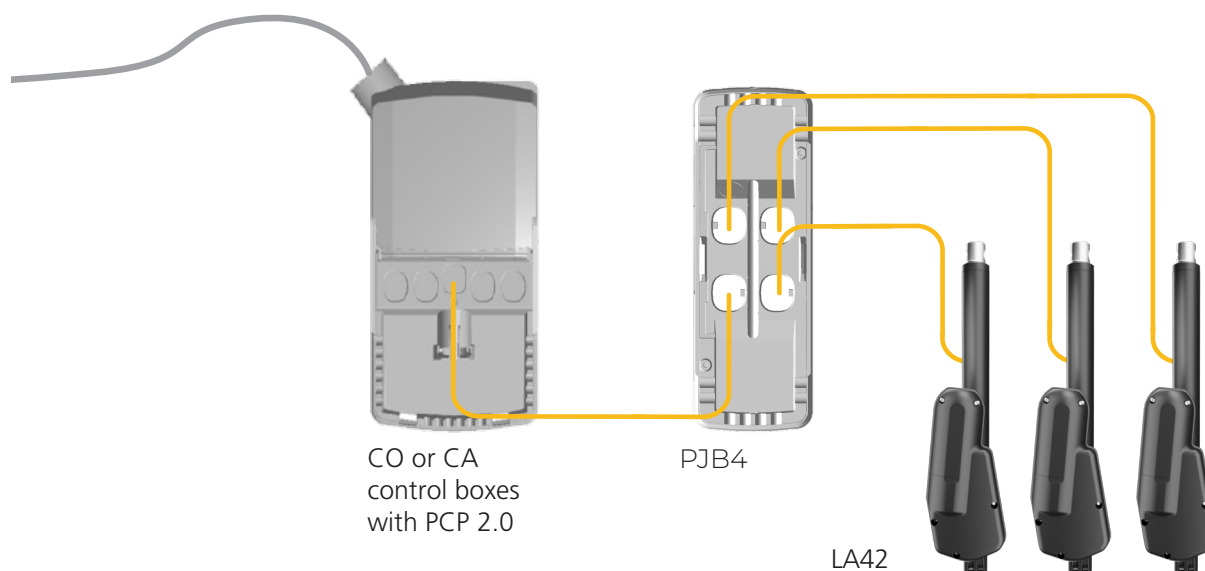
Combination examples

PCP cables marked in yellow

1-actuator system



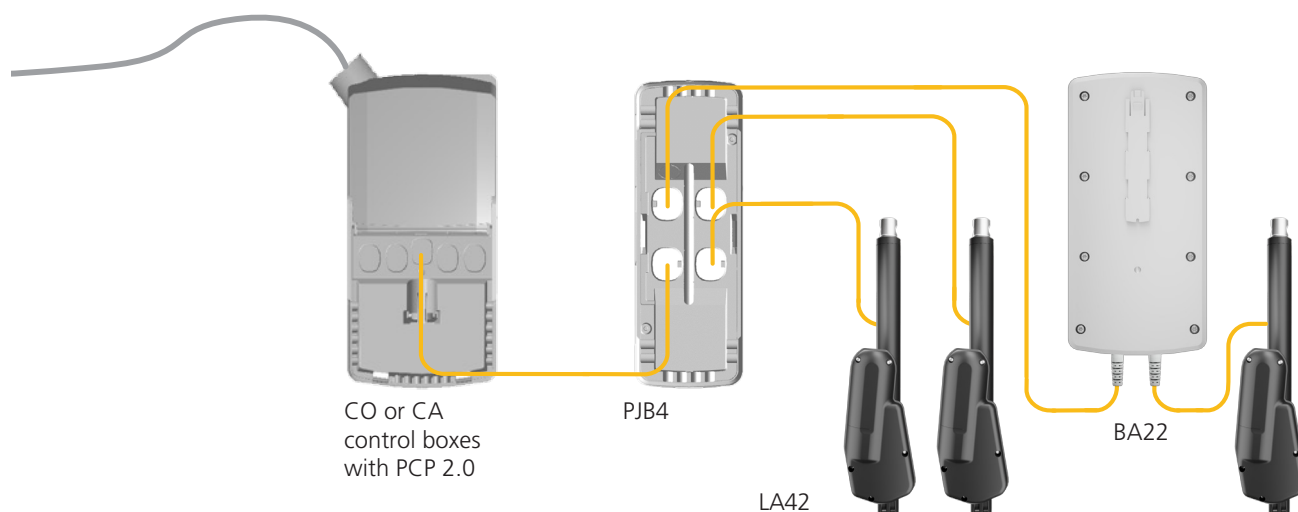
3-actuator system



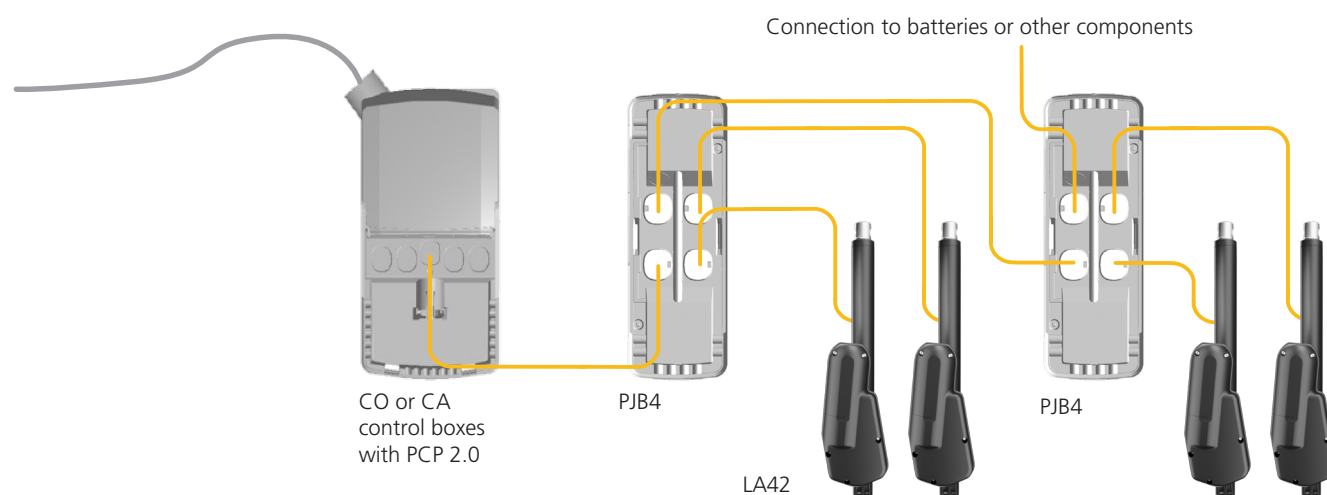
Information

Limitations in the number of actuators running simultaneously will be reduced in accordance with the power consumption of the control box.

3-actuator system with battery



4-actuator system

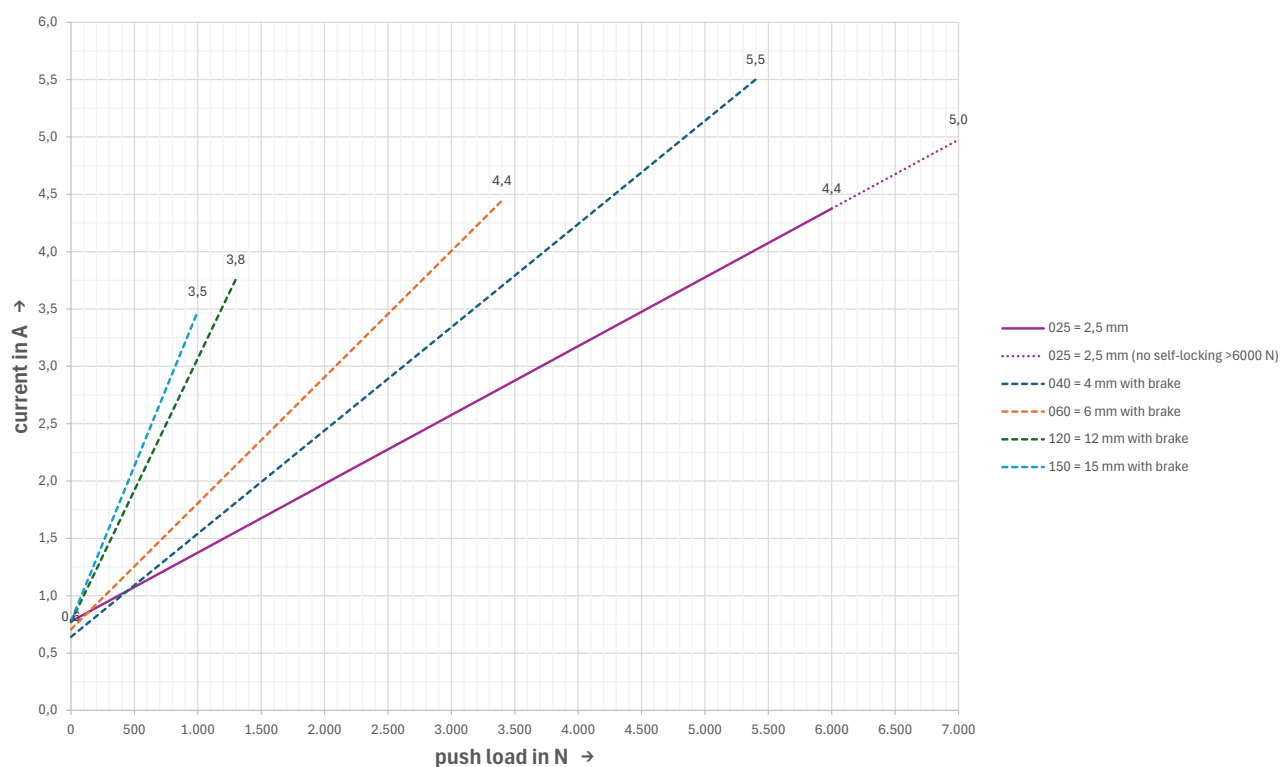
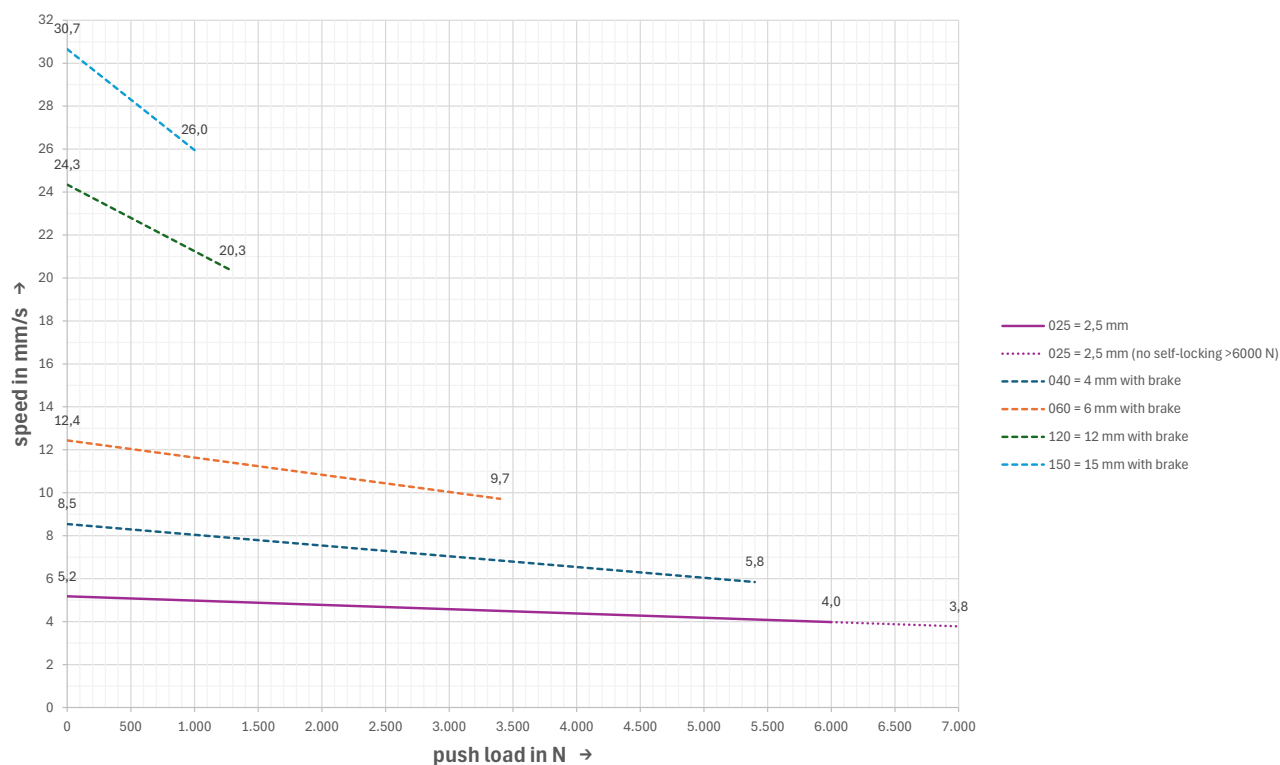


Information

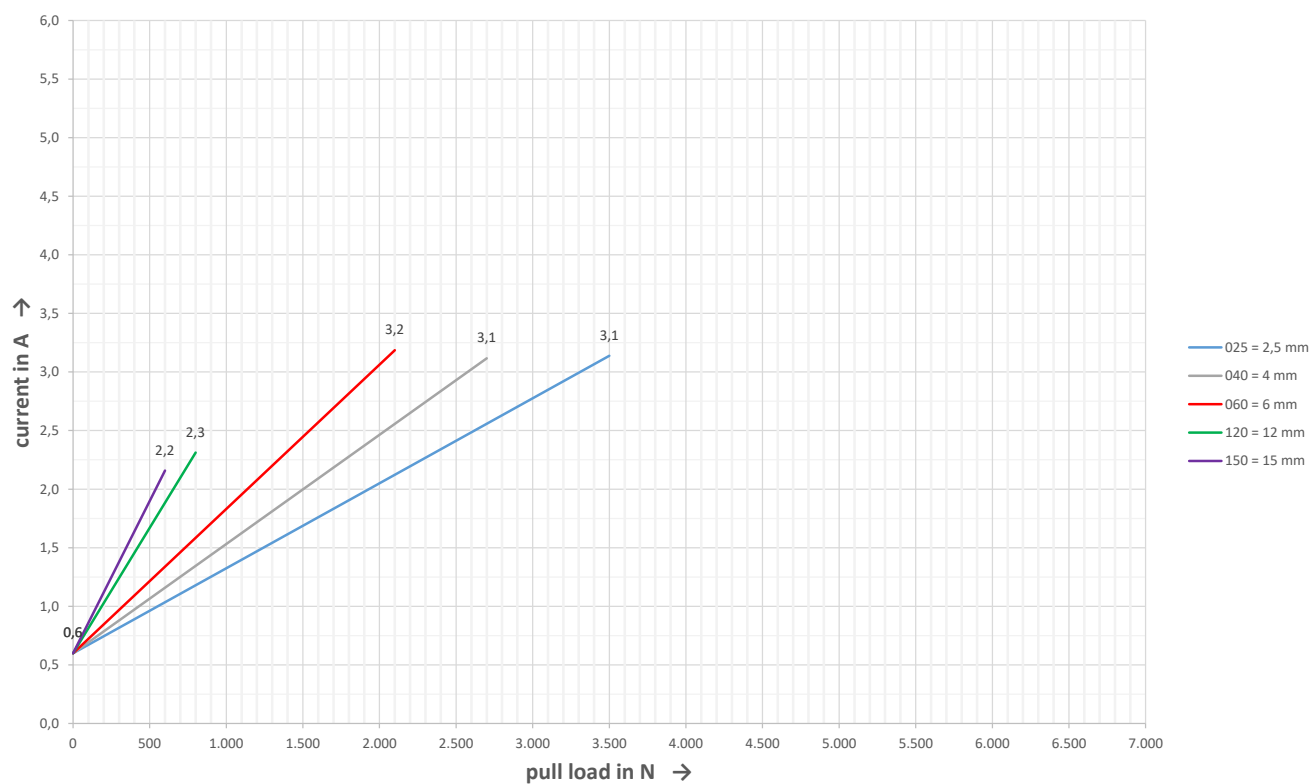
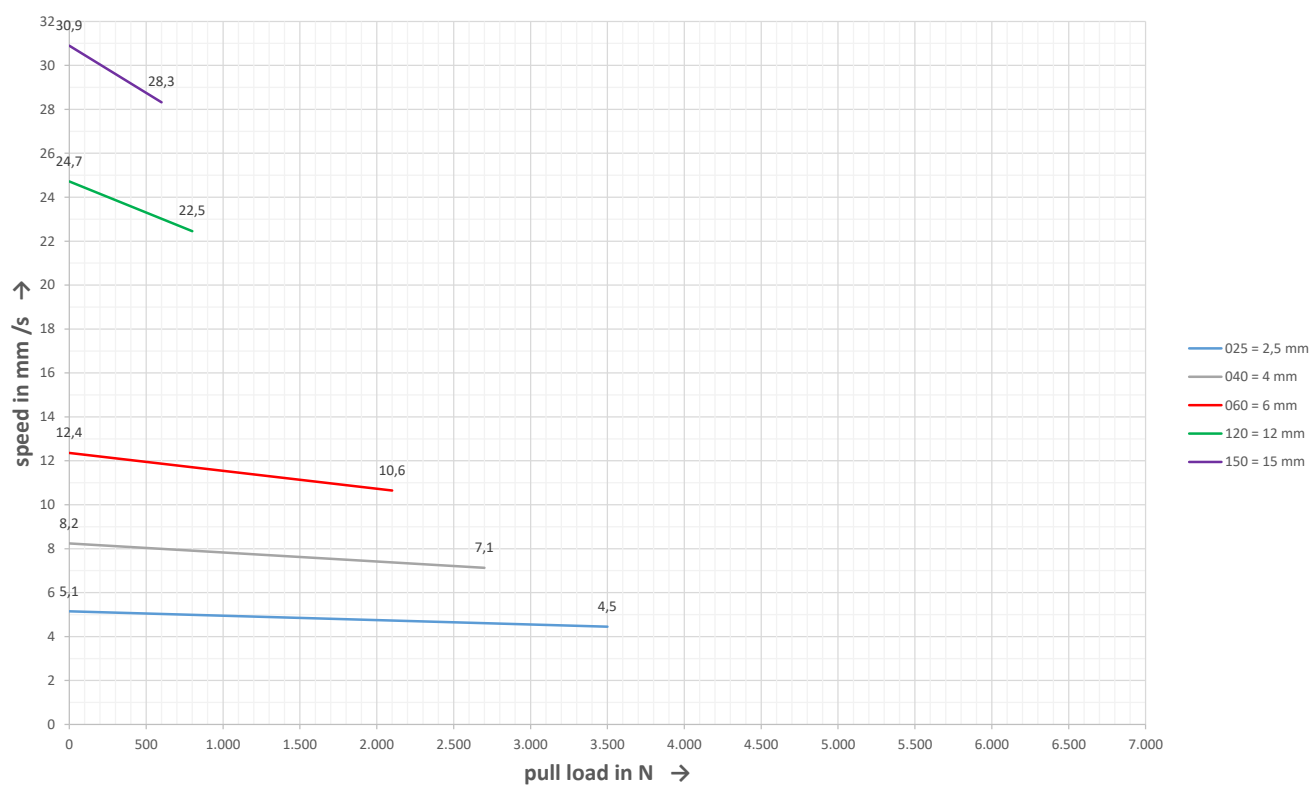
Limitations in the number of actuators running simultaneously will be reduced in accordance with the power consumption of the control box.

Speed, load and current curves

Push version



Pull version



Contacts

FACTORIES

Denmark - Headquarters
LINAK A/S
Phone: +45 73 15 15 15
Fax: +45 74 45 80 48
Fax (Sales): +45 73 15 16 13
Web: www.linak.com

China
LINAK (Shenzhen) Actuator Systems, Ltd.
Phone: +86 755 8610 6656
Phone: +86 755 8610 6990
Web: www.linak.cn

Slovakia
LINAK Slovakia s.r.o.
Phone: +421 51 7563 444
Web: www.linak.sk

Thailand
LINAK APAC Ltd.
Phone: +66 33 265 400
Web: www.linak.com

USA
LINAK U.S. Inc.
Americas Headquarters
Phone: +1 502 253 5595
Fax: +1 502 253 5596
Web: www.linak-us.com
www.linak-latinamerica.com

SUBSIDIARIES

Australia
LINAK Australia Pty. Ltd
Phone: +61 3 8796 9777
Fax: +61 3 8796 9778
E-mail: sales@linak.com.au
Web: www.linak.com.au

Austria
LINAK Zweigniederlassung - Österreich (Wien)
Phone: +43 (1) 890 7446
Fax: +43 (1) 890 744615
E-mail: info@linak.de
Web: www.linak.at - www.linak.hu

Belgium
LINAK Actuator-Systems NV/SA
(Belgium & Luxembourg)
Phone: +32 (0)9 230 01 09
E-mail: beinfo@linak.be
Web: www.linak.be - www.fr.linak.be

Brazil
LINAK Do Brasil Comércio De Atuadores Ltda.
Phone: +55 (11) 2832 7070
Fax: +55 (11) 2832 7060
E-mail: info@linak.com.br
Web: www.linak.com.br

Canada
LINAK Canada Inc.
Phone: +1 502 253 5595
Fax: +1 416 255 7720
E-mail: info@linak.ca
Web: www.linak-us.com

Czech Republic
LINAK C&S s.r.o.
Phone: +42 058 174 1814
Fax: +42 058 170 2452
E-mail: info@linak.cz
Web: www.linak.cz - www.linak.sk

Denmark - International
LINAK International
Phone: +45 73 15 15 15
E-mail: info@linak.com
Web: www.linak.com

Denmark - Sales
LINAK Danmark A/S
Phone: +45 86 80 36 11
Fax: +45 86 82 90 51
E-mail: linak@linak-silkeborg.dk
Web: www.linak.dk

Finland
LINAK OY
Phone: +358 10 841 8700
E-mail: linak@linak.fi
Web: www.linak.fi

France
LINAK France E.U.R.L
Phone: +33 (0) 2 41 36 34 34
Fax: +33 (0) 2 41 36 35 00
E-mail: linak@linak.fr
Web: www.linak.fr

Germany
LINAK GmbH
Phone: +49 6043 9655 0
Fax: +49 6043 9655 60
E-mail: info@linak.de
Web: www.linak.de

India
LINAK A/S India Liaison Office
Phone: +91 120 4531797
Fax: +91 120 4786428
E-mail: info@linak.in
Web: www.linak.in

Ireland
LINAK UK Limited (Ireland)
Phone: +44 (0)121 544 2211
Fax: +44 (0)121 544 2552
+44 (0)796 855 1606 (UK Mobile)
+35 387 634 6554 (Rep.of Ireland Mobile)
E-mail: sales@linak.co.uk
Web: www.linak.co.uk

Italy
LINAK ITALIA S.r.l.
Phone: +39 02 48 46 33 66
Fax: +39 02 48 46 82 52
E-mail: info@linak.it
Web: www.linak.it

Japan
LINAK K.K.
Phone: 81-45-533-0802
Fax: 81-45-533-0803
E-mail: linak@linak.jp
Web: www.linak.jp

Malaysia
LINAK Actuators Sdn. Bhd.
Phone: +60 4 210 6500
Fax: +60 4 226 8901
E-mail: info@linak-asia.com
Web: www.linak.my

Netherlands
LINAK Actuator-Systems B.V.
Phone: +31 76 5 42 44 40 /
+31 76 200 11 10
E-mail: info@linak.nl
Web: www.linak.nl

New Zealand
LINAK New Zealand Ltd
Phone: +64 9580 2071
Fax: +64 9580 2072
E-mail: nzsales@linak.com.au
Web: www.linak.com.au

Norway
LINAK Norge AS
Phone: +47 32 82 90 90
E-mail: info@linak.no
Web: www.linak.no

Poland
LINAK Polska
LINAK Danmark A/S (Spółka Akcyjna)
Phone: +48 22 295 09 70 /
+48 22 295 09 71
E-mail: info@linak.pl
Web: www.linak.pl

Republic of Korea
LINAK Korea Ltd.
Phone: +82 2 6231 1515
Fax: +82 2 6231 1516
E-mail: info@linak.kr
Web: www.linak.kr

Slovakia
LINAK Slovakia S.R.O.
Phone: +421 51 7563 444
Web: www.linak.sk

Spain
LINAK Actuadores, S.L.u
Phone: +34 93 588 27 77
Fax: +34 93 588 27 85
E-mail: esma@linak.es
Web: www.linak.es

Sweden
LINAK Scandinavia AB
Phone: +46 8 732 20 00
Fax: +46 8 732 20 50
E-mail: info@linak.se
Web: www.linak.se

Switzerland
LINAK AG
Phone: +41 43 388 31 88
Fax: +41 43 388 31 87
E-mail: info@linak.ch
Web: www.linak.ch - www.fr.linak.ch
www.it.linak.ch

Taiwan
LINAK (Shenzhen) Actuator systems Ltd.
Taiwan Representative office
Phone: +886 2 272 90068
Fax: +886 2 272 90096
E-mail: sales@linak.com.tw
Web: www.linak.com.tw

Turkey
LINAK İth. İhr. San. ve Tic. A.Ş.
Phone: +90 312 4726338
Fax: +90 312 4726635
E-mail: info@linak.com.tr
Web: www.linak.com.tr

United Kingdom
LINAK UK Limited
Phone: +44 (0)121 544 2211
Fax: +44 (0)121 544 2552
E-mail: sales@linak.co.uk
Web: www.linak.co.uk

DISTRIBUTORS

Argentina
Novotec Argentina SRL
Phone: 011-4303-8989 / 8900
Fax: 011-4032-0184
E-mail: info@novotecargentina.com
Web: www.novotecargentina.com

Colombia
MEM Ltda
Phone: +[57] (1) 334-7666
Fax: +[57] (1) 282-1684
E-mail: servicioalcliente@memltda.com.co
Web: www.mem.net.co

India
Mechatronics Control Equipments India Pvt Ltd
Phone: +91-44-28558484, 85
E-mail: bala@mechatronicscontrol.com
Web: www.mechatronicscontrol.com

Indonesia
PT. Himalaya Everest Jaya
Phone: +6 221 544 8956 /+6 221 544 8965
Fax: +6 221 619 1925
Fax (Sales): +6 221 619 4658
E-mail: hejplastic-div@centrin.net.id
www.hej.co.id

Israel
NetivTech LTD
Phone: +972 55-2266-535
Fax: +972 2-9900-560
Email: info@NetivTech.com
Web: www.netivtech.com

Singapore
Servo Dynamics Pte Ltd
Phone: +65 6844 0288
Fax: +65 6844 0070
E-mail: servodynamics@servo.com.sg

South Africa
Industrial Specialised Applications CC
Phone: +27 011 466 0346
E-mail: gartht@isagroup.co.za
Web: www.isaza.co.za

United Arab Emirates
Mechatronics
Phone: +971 4 267 4311
Fax: +971 4 267 4312
E-mail: mechtron@emirates.net.ae

Terms of use

LINAK® takes great care in providing accurate and up-to-date information on its products. However, the user is responsible for determining the suitability of LINAK products for a specific application. Due to continual development, LINAK products are subject to frequent modifications and changes. LINAK reserves the rights to conduct modifications, updates, and changes without any prior notice. For the same reason, LINAK cannot guarantee the correctness and actual status of imprinted information on its products.

LINAK uses its best efforts to fulfil orders. However, for the reasons mentioned above, LINAK cannot guarantee availability of any particular product at any given time. LINAK reserves the right to discontinue the sale of any product displayed on its website or listed in its catalogues or in other written material created and produced by LINAK, LINAK subsidiaries, or LINAK affiliates. All sales are subject to the 'Standard Terms of Sale and Delivery for LINAK A/S' available on LINAK websites. LINAK and the LINAK logotype are registered trademarks of LINAK A/S. All rights reserved.